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Indian Standard

SPECIFICATION FOR TUNING FORK

1. Scope — Covers Grade A and B tuning forks for use in educational institutions as a source to produce oscillations of constant frequency.

2. Terminology

- 2.1 Decrement Time The period of time during which the tuning fork keeps vibrating after it is struck on a pad.
- 2.2 Prongs Two legs of the 'U'-shaped body.
- 2.3 Stem Bar attached to the 'U' bend.
- 3. Materials The tuning forks shall be made of non-corrosive materials having a low thermal coefficient of elasticity such as alloy steel or aluminium alloy with proper surface treatment.

4. General Requirements

- **4.1** Construction The length of prongs of steel tuning forks shall be 75 to 110 mm. The two prongs of the tuning fork shall be same of dimensions. The stem shall be strong and capable of being easily and firmly held by hand for use. The stem shall form an integral part of the tuning fork.
- 4.2 The recommended frequencies of the tuning fork shall be 256 to 512 (Hz).

Note — For general use where a set of 8 or 13 chromatic scale is not required, tuning forks of 256, 320, 384 and 512 Hz are recommended.

4.3 Finish — The tuning fork made of steel shall be suitably electroplated to avoid corrosion where as those made of aluminium alloy shall be anodized. All tuning forks shall have smooth surface.

5. Tests

- 5.1 Decrement Time The note produced by the tuning fork shall be a long and continuous one. The decrement time shall be not less than 30 for Grade A and 10 for Grade B tuning forks, especially.
- 5.2 Frequency Test The frequency (256 to 512 Hz) marked on the tuning forks shall not vary by more than 0'2 percent in case of Grade A and 0'5 percent in case of Grade B tuning forks respectively when tested with the help of an oscilloscope or a frequency analyser at $25\pm2^{\circ}$ C.
- 6. Marking Each tuning fork shall be marked at a suitable place with the following:
 - a) Manufacturer's name and trade-mark,
 - b) Frequency, and
 - c) Serial number and code number or year of manufacture.
- 6.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 7. Packing Each tuning fork for a set of tuning forks shall be supplied in a box suitably lined with some soft cusioning material.

EXPLANATORY NOTE

This standard deals with the requirements of tuning forks used in the study of sound in educational institutions and is one of the series of Indian Standards on educational instruments and equipment.

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